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Conflict of interest: Dr Speck and Dr Scheller report being co-inventors on a patent application for various methods of inhibiting restenosis, which was submitted by Charité University Hospital in Berlin. Dr Speck reports serving as consultants to Schering AG, Berlin

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IMAGES IN CARDIOLOGY

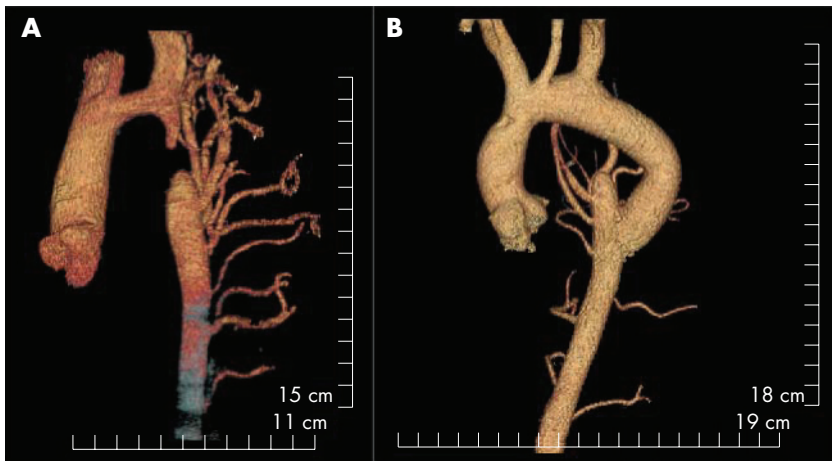
A case of surgical treatment of severe high blood pressure in an adult

A 24-year-old man, asymptomatic, was referred for a diagnosis of high blood pressure (190/100 mm Hg). Pulses in the femoral arteries were weak, and the blood pressure was astonishingly low in the inferior limbs (80/40 mm Hg).

Transthoracic echocardiography confirmed the findings of the electrocardiogram. There was left ventricular hypertrophy, but also an aspect of coarctation with very high velocities in the aortic isthmus (>2.5 m/s). This was confirmed by transoesophageal echography and by computed tomographic angiography, with three-dimensional reconstruction showing complete interruption at the aortic isthmus with aortic arch hypoplasia and a large number of developed collateral arteries (panel A).

A surgical treatment was performed for severe high blood pressure despite pharmacological treatments in a young adult.

A median sternotomy was performed, associated with a left thoracotomy in the fourth intercostal space to expose the descending thoracic aorta. Firstly, to preserve the intercostal arteries (>0.6 cm diameter), the distal end of the Dacron graft was sewn laterally on the descending aorta. Under deep hypothermia and circulatory arrest, we then patched the arch hypoplasia with the proximal end of



Angiographic computed scan was performed 10 days after and showed a good permeability of the aortic graft and preserved collateral arteries.

One month later, the patient is doing well and the blood pressure has stabilised at around 110/60 mm Hg. The only treatment is aspirin 75 mg/day and bisoprolol 10 mg/day.

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